

Union County Natural Area Inventory

CROOKED CREEK AQUATIC HABITAT Significant Natural Heritage Area

Site Significance: State

Length: 26 total river miles; 13 river miles (Crooked Creek); 10 river miles (South Fork Crooked Creek); 3 river miles (North Fork Crooked Creek)

Quadrangles: Bakers, Matthews, Midland, Stanfield

Ownership: North Carolina Public Waters,

SIGNIFICANT FEATURES: Crooked Creek Aquatic Habitat contains a diversity of rare aquatic species, including one fish, Carolina darter (*Etheostoma collis*), and three mussels: Savannah lilliput (*Toxolasma pullus*), eastern creekshell (*Villosa delumbis*), and Carolina creekshell (*Villosa vaughaniana*).

LANDSCAPE RELATIONSHIPS: Crooked Creek begins in Mecklenburg County, North Carolina, and flows across northwestern Union County before joining the Rocky River at the Union/Stanly County line. The Crooked Creek Aquatic Habitat consists of the South Fork Crooked Creek (about 10 river miles), North Fork Crooked Creek (about 3 river miles), and the mainstem Crooked Creek (about 13 river miles), totaling approximately 26 river miles. The Aquatic Habitat is entirely contained within the Piedmont Ecoregion, and more specifically the headwaters are in the Southern Outer Piedmont and the majority of the aquatic habitat is in the Carolina Slate Belt.

Three terrestrial Significant Natural Heritage Areas are in the Crooked Creek drainage: North Fork Crooked Creek Sunflower Site, Crooked Creek Ledges, and Crooked Creek Woods.

Crooked Creek Aquatic Habitat lies southeast of Charlotte, North Carolina's largest city. Several municipalities including Matthews, Indian Trail, Stallings, Lake Park, and Hemby Bridge are located in portions of the Crooked Creek watershed. Urban development is rapidly shifting agricultural lands to residential and commercial uses.

SITE DESCRIPTION: Crooked Creek Aquatic Habitat encompasses the southeast corner of Mecklenburg County and the northwest corner of Union County and includes approximately 26 miles of the North Fork Crooked Creek, South Fork Crooked Creek, and the mainstem Crooked Creek. In addition to the species noted above, the waters of the Aquatic Habitat support the following animals, collected during monitoring efforts by the NC Division of Water Quality, NC Wildlife Resources Commission, and NC Department of Transportation:

Fish: snail bullhead (*Ameiurus brunneus*), black bullhead (*A. melas*), yellow bullhead (*A. natalis*), brown bullhead (*A. nebulosus*), flat bullhead (*A. platycephalus*), American eel (*Anguilla rostrata*), pirate perch (*Aphredoderus sayanus*), white sucker (*Catostomus commersoni*), rosyside dace (*Clinostomus funduloides*), satinfin shiner (*Cyprinella analostana*), gizzard shad (*Dorosoma cepedianum*), creek chubsucker (*Erimyzon oblongus*), fantail darter (*Etheostoma*